# Mass-Inertia Disparity as Cause of Superfluidic Behavior Seen in Ultracold Tritium - Further Evidence of Neutrons Not Being Gravity-Generating

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## Introduction

Physicists have been unable to account for the observed phenomenon of superfluidity, with a prime example being superfluidity observed in ultracold tritium gas.

## Abstract

The observed behavior of superfluidity of ultracold tritium can be explained by the mass-inertia disparity brought about by the additional neutrons in tritium. As has already been circumscribed by this author, neutrons are not gravity-generating. Inertia is driven by gravity and as only protons are gravity-provoking, the addition of neutrons increases mass but does not increase gravity or inertia. With greater mass but without any increase to inertia, momentum may exceed inertia in this rare circumstance, given the ultracold condition. In other words, the tendency to keep moving exceeds the tendency to stay in one place. One winds up with more kinetic motion than one started with after introducing an initial impelling force to the system. This is all explicable through mass-inertia disparity.

The reason that the ultracold condition is required is because momentum may otherwise be converted into thermal energy which may diffuse into surrounding systems. Under the ultracold condition, none of the linear motion of the atoms is converted into Coulomb-related influence of surrounding matter and thus, heat does not escape from the system (and thus, neither does kinetic energy.) This is no different from the traditional atmospheric vacuum thermal insulation effect except that the superfluid has the added characteristic of conservation of kinetic energy as well as thermal and that this conservation exceeds 100% efficiency. Only when the surrounding vessel is chilled to near-absolute-zero can this be possible as mechanical perturbations would otherwise be introduced into the system, preventing the generation of new vortices. The excess energy is actually derived from gravitational energy.

This is a particularly important concept to understand as if non-isotopic gasses could be chilled using using solid-state mechanisms such as Coulomb Force Line-based cooling and if their mass could be amplified (blocking their own innate gravity would be impossible,) their inertia would be reduced relative to their mass. Even achieving this much would be challenging as it would require a supplementary Higgs Field conferred by a combination of collocation with a heavy element and a strong magnetic field as described in 24 April 2024. One would need to bring about a comparable mass-inertia disparity in order to cause

a non-neutron-heavy isotope to behave in the same manner as the ultracold tritium and the ingredient of extreme low temperature would remain a requirement for both the gas and the containment vessel.

## Conclusion

If one intended to use these superfluids for a computing application or any other application, tritium would need to be fully ionized to prevent natural decay as its ~12 year half-life would necessitate frequent replacement of the tritium component of any such system.  Fortunately, this should be tenable as the ultracold, Coulomb-stabilized environment lends itself to artificially-slowed decay.  One would also have the option of using deuterium, which is stable and which might provide sufficient disparity to be rendered as a superfluid, particularly if the overall cooling mechanism was surrounded by an inwardly-oriented permanent magnet to provide a slight augmentation to the Higgs Field to make up the difference between the mass-inertia disparity of deuterium and tritium.